



## Complete Summary

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### TITLE

Chronic kidney disease (CKD): percentage of patients aged 18 years and older with the diagnosis of advanced CKD (stage 4 or 5, not receiving RRT), who had the following laboratory testing ordered at least once during the 12 month reporting period: serum levels of calcium, phosphorus and intact PTH, and lipid profile.

### SOURCE(S)

Renal Physicians Association, Physician Consortium for Performance Improvement®. Chronic kidney disease physician performance measurement set. Chicago (IL): American Medical Association; 2007 Oct. 32 p. [13 references]

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of patients aged 18 years and older with the diagnosis of advanced chronic kidney disease (CKD) (stage 4 or 5, not receiving renal replacement therapy [RRT]), who had the following laboratory testing ordered at least once during the 12 month reporting period: serum levels of calcium, phosphorus and intact parathyroid hormone (iPTH), and lipid profile.

### RATIONALE

Bone disease is a common complication of chronic kidney disease. Patients with chronic kidney disease (CKD) should be monitored for calcium and phosphate imbalances and secondary hyperparathyroidism. Disturbances in mineral and bone

metabolism are prevalent in CKD and are an important cause of morbidity, decrease in quality of life, and extraskeletal calcification that has been associated with increased cardiovascular (CV) mortality (taken verbatim from Definition, evaluation, and classification of renal osteodystrophy: a position statement from the Kidney Disease: Improving Global Outcomes [KDIGO], 2006). Gaps: United States Renal Data System (USRDS) 2006 data show that less than 30% of Medicare (and less than 20% of Employer Group Health Plans [EGHP]) patients receive calcium (Ca), phosphate (Phos), parathyroid hormone (PTH) measures within a year.\*

\*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Serum levels of calcium, phosphorus, and intact plasma parathyroid hormone (iPTH) should be measured in all patients with CKD and glomerular filtration rate (GFR) less than 60 ml/min/1.73m<sup>2</sup>. (National Kidney Foundation [NKF], 2003)

If a patient has GFR less than or equal to 30 ml/min/1.73m<sup>2</sup>, then s/he should have his/her serum calcium and phosphorus measured at least every three months, and iPTH levels measured at least once. (Renal Physicians Association [RPA], 2002)

Patients with CKD should be considered in the "highest-risk" group for cardiovascular disease (CVD) for implementing recommendations for pharmacological therapy, irrespective of cause of CKD. (NKF, 2004)

All adults and adolescents with CKD should be evaluated for dyslipidemias. (NKF, 2003)

For adults and adolescents with CKD, the assessment of dyslipidemias should include a complete fasting lipid profile with total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL), and triglycerides. (NKF, 2003)

## **PRIMARY CLINICAL COMPONENT**

Chronic kidney disease (CKD); calcium; phosphorus; intact parathyroid hormone (iPTH) test; lipid profile

## **DENOMINATOR DESCRIPTION**

All patients aged 18 years and older with the diagnosis of advanced chronic kidney disease (CKD) (stage 4 or 5, not receiving renal replacement therapy [RRT]) (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## **NUMERATOR DESCRIPTION**

Patients who had the following laboratory testing ordered at least once during the 12 month reporting period: serum levels of calcium, phosphorus and intact parathyroid hormone (iPTH), and lipid profile

## **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

## **NATIONAL GUIDELINE CLEARINGHOUSE LINK**

- [Clinical practice guidelines for bone metabolism and disease in chronic kidney disease.](#)
- [K/DOQI clinical practice guidelines on hypertension and antihypertensive agents in chronic kidney disease.](#)

## **Evidence Supporting Need for the Measure**

### **NEED FOR THE MEASURE**

Overall poor quality for the performance measured  
Use of this measure to improve performance

### **EVIDENCE SUPPORTING NEED FOR THE MEASURE**

U.S. Renal Data System. USRDS 2006 annual data report: atlas of end-stage renal disease in the United States. Bethesda (MD): National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases; 2006.

## **State of Use of the Measure**

### **STATE OF USE**

Current routine use

### **CURRENT USE**

Internal quality improvement  
National reporting

## **Application of Measure in its Current Use**

### **CARE SETTING**

Ambulatory Care  
Physician Group Practices/Clinics

### **PROFESSIONALS RESPONSIBLE FOR HEALTH CARE**

Physicians

### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Individual Clinicians

**TARGET POPULATION AGE**

Age greater than or equal to 18 years

**TARGET POPULATION GENDER**

Either male or female

**STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

**Characteristics of the Primary Clinical Component****INCIDENCE/PREVALENCE**

Unspecified

**ASSOCIATION WITH VULNERABLE POPULATIONS**

Unspecified

**BURDEN OF ILLNESS**

Unspecified

**UTILIZATION**

Unspecified

**COSTS**

Unspecified

**Institute of Medicine National Healthcare Quality Report Categories****IOM CARE NEED**

Living with Illness

**IOM DOMAIN**

Effectiveness

**Data Collection for the Measure****CASE FINDING**

Users of care only

## **DESCRIPTION OF CASE FINDING**

All patients aged 18 years and older with the diagnosis of advanced chronic kidney disease (CKD) (stage 4 or 5, not receiving renal replacement therapy [RRT])

## **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

## **DENOMINATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

All patients aged 18 years and older with the diagnosis of advanced chronic kidney disease (CKD) (stage 4 or 5, not receiving renal replacement therapy [RRT])

### **Exclusions**

- Documentation of medical reason(s) for not ordering serum levels of calcium, phosphorus, intact parathyroid hormone (iPTH), and lipid profile measured
- Documentation of patient reason(s) for not ordering serum levels of calcium, phosphorus, intact PTH, and lipid profile measured

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition  
Encounter

## **DENOMINATOR TIME WINDOW**

Time window is a single point in time

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Patients who had the following laboratory testing ordered at least once during the 12 month reporting period: serum levels of calcium, phosphorus and intact parathyroid hormone (iPTH), and lipid profile

### **Exclusions**

None

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

### **NUMERATOR TIME WINDOW**

Fixed time period

### **DATA SOURCE**

Administrative data  
Medical record

### **LEVEL OF DETERMINATION OF QUALITY**

Individual Case

### **PRE-EXISTING INSTRUMENT USED**

Unspecified

## **Computation of the Measure**

### **SCORING**

Rate

### **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

### **ALLOWANCE FOR PATIENT FACTORS**

Unspecified

### **STANDARD OF COMPARISON**

Internal time comparison

## **Evaluation of Measure Properties**

### **EXTENT OF MEASURE TESTING**

Unspecified

## Identifying Information

### ORIGINAL TITLE

Measure #3: laboratory testing (calcium, phosphorus, and intact parathyroid hormone [iPTH], and lipid profile).

### MEASURE COLLECTION

[The Physician Consortium for Performance Improvement® Measurement Sets](#)

### MEASURE SET NAME

[Chronic Kidney Disease Physician Performance Measurement Set](#)

### SUBMITTER

American Medical Association on behalf of the Renal Physicians Association and the Physician Consortium for Performance Improvement®

### DEVELOPER

Physician Consortium for Performance Improvement®  
Renal Physicians Association

### FUNDING SOURCE(S)

Unspecified

### COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

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## **FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

## **INCLUDED IN**

Ambulatory Care Quality Alliance  
Physician Quality Reporting Initiative

## **ADAPTATION**

Measure was not adapted from another source.

## **RELEASE DATE**

2007 Oct

## **MEASURE STATUS**

This is the current release of the measure.

## **SOURCE(S)**

Renal Physicians Association, Physician Consortium for Performance Improvement®. Chronic kidney disease physician performance measurement set. Chicago (IL): American Medical Association; 2007 Oct. 32 p. [13 references]

## **MEASURE AVAILABILITY**

The individual measure, "Measure #3: Laboratory Testing (Calcium, Phosphorus, and Intact Parathyroid Hormone [iPTH], and Lipid Profile)," is published in the "Chronic Kidney Disease Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: [www.physicianconsortium.org](http://www.physicianconsortium.org).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## **NQMC STATUS**



This NQMC summary was completed by ECRI Institute on March 27, 2008. The information was verified by the measure developer on June 11, 2008.

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